

Model 2083-06 Code Translator

Installation and Operation Instructions

This manual describes the installation and operating procedures for the model 2083-06 Code Translator. The 2083-06 Code Translator is an interface unit used with American Dynamics Switching Systems. This unit translates codes to enable the use of all American Dynamics equipment with that of Pelco Intercept Domes.

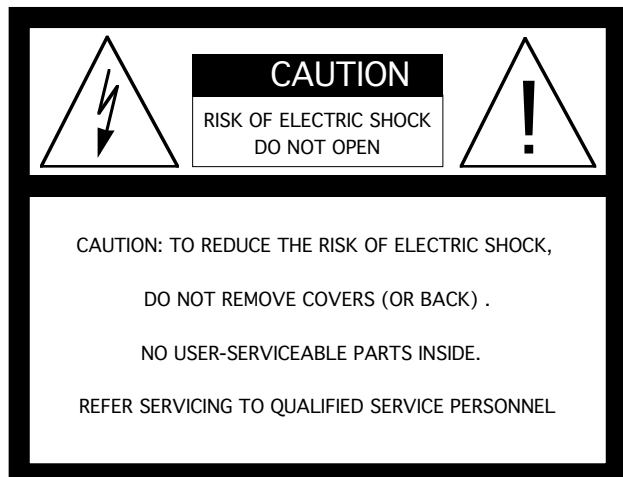
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The installation of this product should be made by qualified service personnel and should conform to all local codes.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.



UNPACKING AND INSPECTION

Unpack carefully. This is an electronic product and should be handled as such. Compare the items received with the packing list with your order.

Be sure to save:

1. The shipping cartons and insert pieces. They are the safest material in which to make future shipments of the product.
2. The IMPORTANT SAFEGUARDS sheet.
3. These Installation and Operating Instructions.

This equipment has been tested and found to comply with Part 15 of the FCC Rules.

Operation is subject to the following two conditions: 1. This device may not cause harmful interference, and 2. This device must accept any interference received, including interference that may cause undesired operation.

MAINTENANCE

User maintenance of this unit is limited to external cleaning and inspection. For specific recommendations refer to the IMPORTANT SAFEGUARDS sheet packaged with this product.

INSTALLATION AND SERVICE

If you require information during installation of this product or if service seems necessary, contact the Sensormatic Repair and Service Department at (800) 442-2225. You must obtain a Return Authorization Number and shipping instructions before returning any product for service.

Do not attempt to service this product yourself. Opening or removing covers may expose you to dangerous voltages or other hazards. Refer all servicing to qualified personnel.

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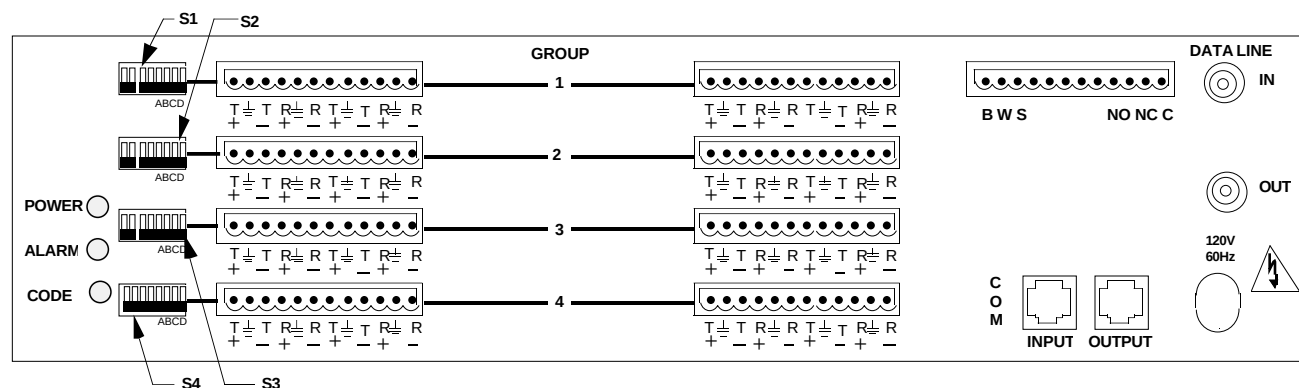


Figure 1 - 2083-06 Code Translator - Rear Panel

PRODUCT DESCRIPTION

The 2083-06 Code Translator is used as an interface to American Dynamics switching systems. The 2083-06 allows retrofit or new installation of American Dynamics switchers where non-AD remote camera control systems are in place or desired.

The 2083-06 interfaces with Pelco Intercept Domes. A single 2083-06 can control 16 separate cameras. When operating with the Control Code interface, multiple 2083-06 units can control up to 128 cameras with 1650 switchers, and 32 cameras with 2150 switchers. When using the Data Line interface, multiple 2083-06 units can control up to 512 cameras with 1995 systems, and 1024 cameras with 2050/1024 systems.

FEATURES

- ☛ UNIVERSAL MOUNT CABINET
- ☛ LED POWER /CODE INDICATORS
- ☛ DIP SWITCH SELECTION FOR CAMERA GROUP
- ☛ DIP SWITCH CONFIGURATION FOR BAUD RATE
- ☛ SCREW TERMINAL WIRE CONNECTOR

INSTALLATION

This installation should be made by qualified service personnel and should conform to all local codes. Safeguards must be taken to avoid unintentional operation by employees and maintenance personnel working about the premises, by falling objects, by customers, by building vibration, and by similar causes.

The universal cabinet of the 2083-06 Code Translator may be surface or rack mounted in any convenient location with adequate ventilation.

Rack Mounting

The 2083-06 is shipped with the mounting ears installed flush with the front panel, and can be mounted to the front of a standard 19-inch rack. The ears of the 2083-06 Code Translator can be removed and reinstalled such that they are flush with the rear panel. This allows the 2083-06 to be mounted to the rear of a rack that is equipped with mounting channels. For proper ventilation allow at least three feet (1 m) from the rear of the racks to any wall and one EIA rack height, 1.75 inches (4.5 cm), between units in a rack.

Wall Mounting

The unit can be mounted to the wall by reinstalling the ears perpendicular to the side of the unit. The bottom or top covers can face toward the wall and the front or rear panel face upwards.

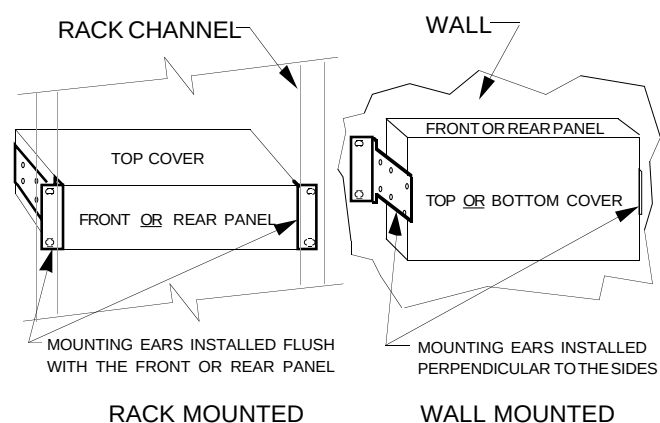


Figure 2 - Mounting Options

SETUP

SETUP

Camera Block Assignments

The 2083-06 Code Translator must be set to identify the range of camera numbers to be controlled by the unit. DIP switches, both on the 2083-06 rear panel and internal to the unit, are used to set the range of camera numbers to be controlled by each connector group (1 - 4) on the rear panel. Within the range of camera numbers selected, four separate cameras can be connected and controlled via each connector group, for a total of 16 cameras per 2083-06.

Four 8-position DIP switches (S1, S2, S3, and S4) are located on the rear panel, as shown in Figure 1, page 1. The settings of these DIP switches determine the camera number range associated with the RS-422 connectors in each of the four connector groups. Each group can process a separate block of 255, 64, 32, or 16 camera numbers, depending on the Camera Mode set in DIP switch S5 (Table 1).

Two 8-position DIP switches (S5 and S6) are located on the main 2083-06 PCB (see Figure 3). The switch positions of DIP switch S5 are used for setup of the connectors Baud Rates and the addressing Camera Mode. DIP switch S6 extends the camera number range addressing of switches S1 - S4.

Refer to Table 3, pages 3 and 4, for the camera number range settings of switches S1, S2, S3, S4, and S6.

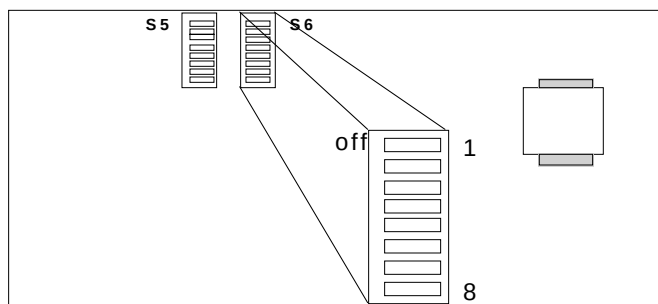


Figure 3 - Location of Internal DIP Switches

- CAUTION -

The following internal adjustments expose hazardous-voltage components and allow access to dangerous electric shock potentials. These adjustments should be made only by qualified service personnel.

Camera Mode

The S5 DIP switch is used to define the maximum range of camera numbers that can be processed via each connector group on the rear panel. This also determines the addressing mode for the rear panel DIP switches S1 - S4 and internal switch S6 (Table 3). The Camera Mode selected by switch S5 is the same for all four connector groups.

Table 1 shows the Camera Mode settings for switch S5. The factory default settings are indicated in bold type.

Table 1 - S5, CAMERA MODE SETUP

Camera Number Mode	Switch Positions (0=OFF, 1=ON)	
	<u>7</u>	<u>8</u>
255	0	0
64	1	0
32	0	1
16	1	1

Baud Rate Selection

The S5 DIP switch configures the baud rates for the RS-422 terminal pins of the Pelco interface connectors (page 5). For the Pelco Intercept Dome connections, set the RS-422 baud rate to 2400.

Table 2 shows the baud rate settings for switch S5. The factory default settings are indicated in bold type.

Table 2 - S5, BAUD RATE SETUP

Baud Rate	Switch Positions (0=OFF, 1=ON)	
	<u>5</u>	<u>6</u>
1200	0	0
2400	1	0
4800	0	1
9600	1	1

Table 3 - CAMERA NUMBER RANGE

The following table shows the DIP switch settings for the camera number range of each connector group. The active positions of switches S1 - S4 are labeled A, B, C, and D on the rear panel (Figure 1). The active positions of DIP switch S6 are labeled 1 through 8 on the internal DIP switch (Figure 3). The switch settings differ according to the Camera Mode set (Table 1, page 2).

Switch S6 is used for Camera Modes 32 and 16 only. (See page 4 for Camera Mode 16 switch settings.)

For Camera Modes **255** and **64** the following switches are used, corresponding to the rear panel connector group:

	<u>Rear Panel Switch</u>
Group 1	S1
Group 2	S2
Group 3	S3
Group 4	S4

Note: Internal switch S6 is not used for 255 and 64 camera addressing modes, and should be set to all zeros (Off).

Camera Mode: 255

	<u>Switch Positions (0=OFF, 1=ON)</u>			
<u>Camera Numbers</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
1 - 255	0	0	0	0
256 - 510	0	0	0	1
511 - 765	0	0	1	0
766 - 1020	0	0	1	1
1021 - 1024	0	1	0	0

Camera Mode: 64

	<u>Switch Positions (0=OFF, 1=ON)</u>			
<u>Camera Numbers</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
1 - 64	0	0	0	0
65 - 128	0	0	0	1
128 - 192	0	0	1	0
193 - 256	0	0	1	1
257 - 320	0	1	0	0
321 - 384	0	1	0	1
385 - 448	0	1	1	0
449 - 512	0	1	1	1
513 - 576	1	0	0	0
577 - 640	1	0	0	1
641 - 704	1	0	1	0
705 - 768	1	0	1	1
769 - 832	1	1	0	0
833 - 896	1	1	0	1
897 - 960	1	1	1	0
961 - 1024	1	1	1	1

Camera Mode: 32

For Camera Mode **32** the following switches are used, corresponding to the rear panel connector group:

	<u>S6 positions</u>	<u>Rear Panel Switch</u>
Group 1	1 2	S1
Group 2	3 4	S2
Group 3	5 6	S3
Group 4	7 8	S4

	<u>Switch Positions (0=OFF, 1=ON)</u>				
<u>Camera Numbers</u>	<u>S6</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
1 - 32	0 0	0	0	0	0
33 - 64	0 0	0	0	0	1
65 - 96	0 0	0	0	1	0
97 - 128	0 0	0	0	1	1
129 - 160	0 0	0	1	0	0
161 - 192	0 0	0	1	0	1
193 - 224	0 0	0	1	1	0
225 - 256	0 0	0	1	1	1
257 - 288	0 0	1	0	0	0
289 - 320	0 0	1	0	0	1
321 - 352	0 0	1	0	1	0
353 - 384	0 0	1	0	1	1
385 - 416	0 0	1	1	0	0
417 - 448	0 0	1	1	0	1
449 - 480	0 0	1	1	1	0
481 - 512	0 0	1	1	1	1
513 - 544	0 1	0	0	0	0
545 - 576	0 1	0	0	0	1
577 - 608	0 1	0	0	1	0
609 - 640	0 1	0	0	1	1
641 - 672	0 1	0	1	0	0
673 - 704	0 1	0	1	0	1
705 - 736	0 1	0	1	1	0
737 - 768	0 1	0	1	1	1
769 - 800	0 1	1	0	0	0
801 - 832	0 1	1	0	0	1
833 - 864	0 1	1	0	1	0
865 - 896	0 1	1	0	1	1
897 - 928	0 1	1	1	0	0
929 - 960	0 1	1	1	0	1
961 - 992	0 1	1	1	1	0
993 - 1024	0 1	1	1	1	1

For example: To set Group 2 connections for camera numbers 609 - 640, set the following switches:

S6 - position 3 = 0 and position 4 = 1

S2 - position A = 0, position B = 0, position C = 1, and position D = 1.

SETUP

Table 3 - CAMERA NUMBER RANGE (Continued)

The following table shows the DIP switch settings for the camera number range of each connector group. The active positions of switches S1 - S4 are labeled A, B, C, and D on the rear panel (Figure 1). The active positions of DIP switch S6 are labeled 1 through 8 on the internal DIP switch (Figure 3).

Camera Mode: 16

For Camera Mode **16** the following switches are used, corresponding to the rear panel connector group:

	<u>S6 positions</u>		<u>Rear Panel Switch</u>
Group 1	1	2	S1
Group 2	3	4	S2
Group 3	5	6	S3
Group 4	7	8	S4

<u>Camera Numbers</u>	<u>Switch Positions (0=OFF, 1=ON)</u>				
	<u>S6</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
1 - 16	0 0	0	0	0	0
17 - 32	0 0	0	0	0	1
33 - 48	0 0	0	0	1	0
49 - 64	0 0	0	0	1	1
65 - 80	0 0	0	1	0	0
81 - 96	0 0	0	1	0	1
97 - 112	0 0	0	1	1	0
113 - 128	0 0	0	1	1	1
129 - 144	0 0	1	0	0	0
145 - 160	0 0	1	0	0	1
161 - 176	0 0	1	0	1	0
177 - 192	0 0	1	0	1	1
193 - 208	0 0	1	1	0	0
209 - 224	0 0	1	1	0	1
225 - 240	0 0	1	1	1	0
241 - 256	0 0	1	1	1	1
257 - 272	0 1	0	0	0	0
273 - 288	0 1	0	0	0	1
289 - 304	0 1	0	0	1	0
305 - 320	0 1	0	0	1	1
321 - 336	0 1	0	1	0	0
337 - 352	0 1	0	1	0	1
353 - 368	0 1	0	1	1	0
369 - 384	0 1	0	1	1	1
385 - 400	0 1	1	0	0	0
401 - 416	0 1	1	0	0	1
417 - 432	0 1	1	0	1	0
433 - 448	0 1	1	0	1	1
449 - 464	0 1	1	1	0	0
465 - 480	0 1	1	1	0	1
481 - 496	0 1	1	1	1	0
497 - 512	0 1	1	1	1	1

<u>Camera Numbers</u>	<u>Switch Positions (0=OFF, 1=ON)</u>				
	<u>S6</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
513 - 528	1 0	0	0	0	0
529 - 544	1 0	0	0	0	1
545 - 560	1 0	0	0	1	0
561 - 576	1 0	0	0	1	1
577 - 592	1 0	0	1	0	0
593 - 608	1 0	0	1	0	1
609 - 624	1 0	0	1	1	0
625 - 640	1 0	0	1	1	1
641 - 656	1 0	1	0	0	0
657 - 672	1 0	1	0	0	1
673 - 688	1 0	1	0	1	0
689 - 704	1 0	1	0	1	1
705 - 720	1 0	1	1	0	0
721 - 736	1 0	1	1	0	1
737 - 752	1 0	1	1	1	0
753 - 768	1 0	1	1	1	1
769 - 784	1 1	0	0	0	0
785 - 800	1 1	0	0	0	1
801 - 816	1 1	0	0	1	0
817 - 832	1 1	0	0	1	1
833 - 848	1 1	0	1	0	0
849 - 864	1 1	0	1	0	1
865 - 880	1 1	0	1	1	0
881 - 896	1 1	0	1	1	1
897 - 912	1 1	1	0	0	0
913 - 928	1 1	1	0	0	1
929 - 944	1 1	1	0	1	0
945 - 960	1 1	1	0	1	1
961 - 976	1 1	1	1	0	0
977 - 992	1 1	1	1	0	1
993 - 1008	1 1	1	1	1	0
1009 - 1024	1 1	1	1	1	1

For example: To set Group 3 connections for camera numbers 609 - 624, set the following switches:

S6 - position 5 = 1 and position 6 = 0

S2 - position A = 0, position B = 1, position C = 1, and position D = 0

CONNECTIONS

Pelco Interface Connectors

Eight 12-pin connectors on the rear panel of the 2083-06 are used for transmitting and receiving codes with Pelco Intercept Domes. Each connector provides two separate RS-422 connections, for cameras that are within the selected camera number range of that group. The transmit (T) and receive (R) signal pins are labeled on each connector. Each connector is supplied with a mating screw terminal connector (Figure 4).

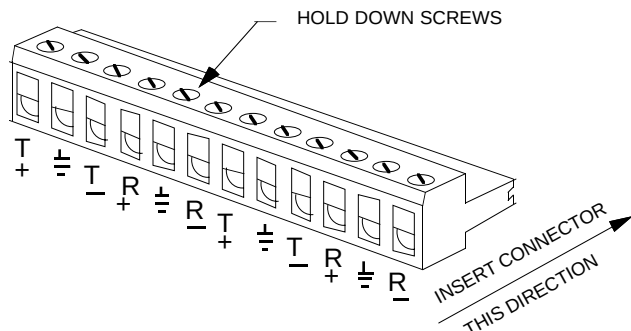


Figure 4 - Typical Mating Connector

Control Code Connector

The upper-right connector on the rear panel of the 2083-06 is a 12-pin connector. This is used to receive camera Control Code signals from 1650 or 2150 switching systems (B, W, and S lines). A mating screw terminal connector is provided (Figure 5).

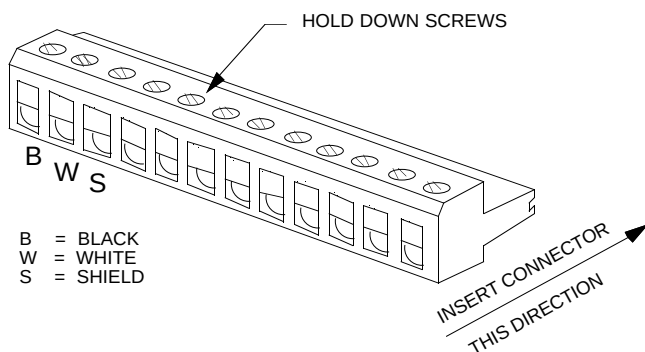


Figure 5 - Control Code Mating Connector

Connections on these 12-pin connectors are made by inserting the signal wires into the appropriate slots and tightening the hold-down screws. When all ties have been connected, insert the mating connectors into the 2083-06 rear panel terminals.

Data Line Connectors

Two DATA LINE BNC connectors are provided on the rear panel, labeled IN and OUT. The IN is used to receive camera control codes from 1995 or 2050/1024 switching systems. The OUT is a loop through connection -- this line is terminated in 75 ohms. Use good grade RG-59U cable for all connections.

Note: 1995 or 2050/1024 systems with existing B/W/S Control Code interfaces can be connected to the 2083-06 Control Code Connector, as shown in Figure 5 above.

See the Appendix for typical system connections.

OPERATION

OPERATION

Power Sources

DO NOT CONNECT THE EQUIPMENT TO A POWER SOURCE UNTIL READY TO "POWER UP". Make all connections to the 2083-06 code input and relay connections and set the DIP switches prior to power up.

The 2083-06 Code Translator does not contain an On/Off Switch. The socket outlet shall be located near the equipment and shall be readily accessible. The 120 V units are supplied with a pendant 3-wire cord and plug for mating to the primary source outlet. The 230 V units are supplied with a Euro style IEC 320 type inlet. A suitable detachable cord should be connected between the IEC 320 inlet and the power source. The cord should conform to all national and local use code requirements. A green POWER LED indicator located on the rear panel illuminates when power is applied.

Code Translators are available in two models, depending on the power source to be used:

AD2083-06	120VAC, 50/60 Hz
ADS2083-06X	230VAC, 50/60 Hz

The 2083-06 unit has fuse power protection. The fuse sizes for replacement are;

120 V - 250 V, SB,	0.3 A, 5 x 20 mm
230 V - 250 V, T,	125 mA, 5 x 20 mm

Operating Indicators

When the unit is receiving valid code, the green CODE LED, on the rear panel, is illuminated. The LED stays lit for 5 seconds after code is removed. If this LED does not light, a problem in the unit or its interconnection may be indicated.

If an alarm input is activated, the green ALARM LED illuminates, and the alarm relay closes. The ALARM LED will go out and the alarm relay will open ten seconds after the alarm input is reset or removed.

Controlling Pelco Receiver Features

The 2083-06 supports the transmitted codes for Pelco Intercept Domes features. This includes the standard American Dynamics keyboard functions for camera Pan, Tilt, and Lens control. For those Pelco domes which implement preset capability, the 2083-06 supports AD keyboard commands for 32 presets per receiver.

Pelco domes support the use of eight auxiliary actions. The first three Pelco dome auxiliary channels are controlled via the normal AD keyboard AUX commands. Pelco dome auxiliary channels 4 through 8 are controlled from the AD keyboard using the commands indicated in Table 4, page 5.

In addition, the 2083-06 provides AD keyboard commands for the control of several unique Pelco Intercept Domes functions. These additional functions and the associated AD keyboard commands are shown in Table 4, page 5.

**IF YOU ENCOUNTER ANY PROBLEMS
OPERATING THIS UNIT, OR NEED ASSISTANCE,
CALL OUR TECHNICAL SUPPORT CENTER:**

within the United States: **1-800-442-2225**
outside the United States: **(914) 624-7640**

Table 4 - Pelco Intercept Dome Commands

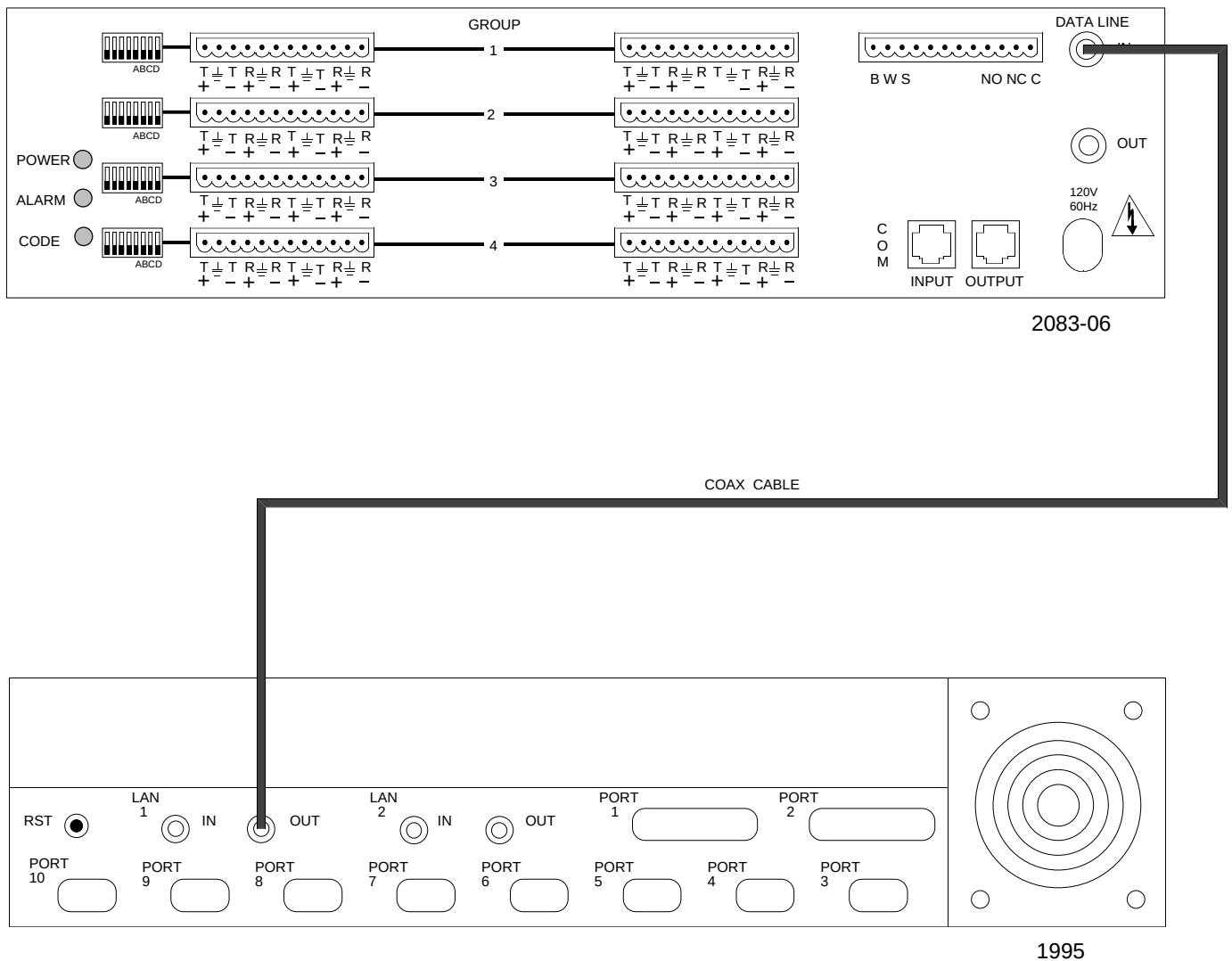
<u>Pelco Function</u>	<u>Dome Action</u>	<u>AD Keyboard Command</u>
Pan, Tilt, Zoom, Focus, and Iris Functions		Pan, Tilt, Zoom, Focus, and Iris Controls
Presets (For those Pelco domes which implement preset capability):		
Set Preset 1 - 32	Saves camera position as preset 1 - 32	1 - 32 Set Shot
Goto Preset 1 - 32	Moves camera to preset position 1 - 32	1 - 32 Call Shot
Auxiliaries:		
Set AUX 1 - 3	Activates Auxiliaries 1-3	1 - 3 AUX On
Set AUX 4	Activates Auxiliary 4	54 Call Shot
Set AUX 5	Activates Auxiliary 5	55 Call Shot
Set AUX 6	Activates Auxiliary 6	56 Call Shot
Set AUX 7	Activates Auxiliary 7	57 Call Shot
Set AUX 8	Activates Auxiliary 8	58 Call Shot
Clear AUX 1-3	Clears Auxiliaries 1-3	1-3 AUX Off
Clear AUX 4	Clears Auxiliary 4	64 Call Shot
Clear AUX 5	Clears Auxiliary 5	65 Call Shot
Clear AUX 6	Clears Auxiliary 6	66 Call Shot
Clear AUX 7	Clears Auxiliary 7	67 Call Shot
Clear AUX 8	Clears Auxiliary 8	68 Call Shot
Other Pelco Intercept Dome functions:		
Configure Dome	Resets dome	72 Call Shot, followed by 72 Set Shot
Clear screen	Clears dome messages/ titles	41 Set Shot
Flip 180°	Pans camera 180° from current position	40 Call Shot
Lens Zoom Speed: 0 - 3	Sets camera lens zoom speed	41 - 44 Call Shot
Lens Focus Speed: 0 - 3	Sets camera lens focus speed	45 - 48 Call Shot
Pattern Start Point	Sets start position of automatic pattern *	43 Set Shot
Pattern Stop Point	Sets stop position of automatic pattern *	33 Set Shot
Run Pattern	Starts automatic pattern *	33 Call Shot
Turbo Speed On	Enables high speed camera movement	51 Call Shot
Turbo Speed Off	Disables high speed camera movement	50 Call Shot

* The Pelco dome automatic pattern feature records each camera position between the Start Point and the Stop Point, as the camera is moved using pan/tilt/lens control functions. Refer to the Pelco dome Operating Manual for specific instructions on setting patterns.

APPENDIX

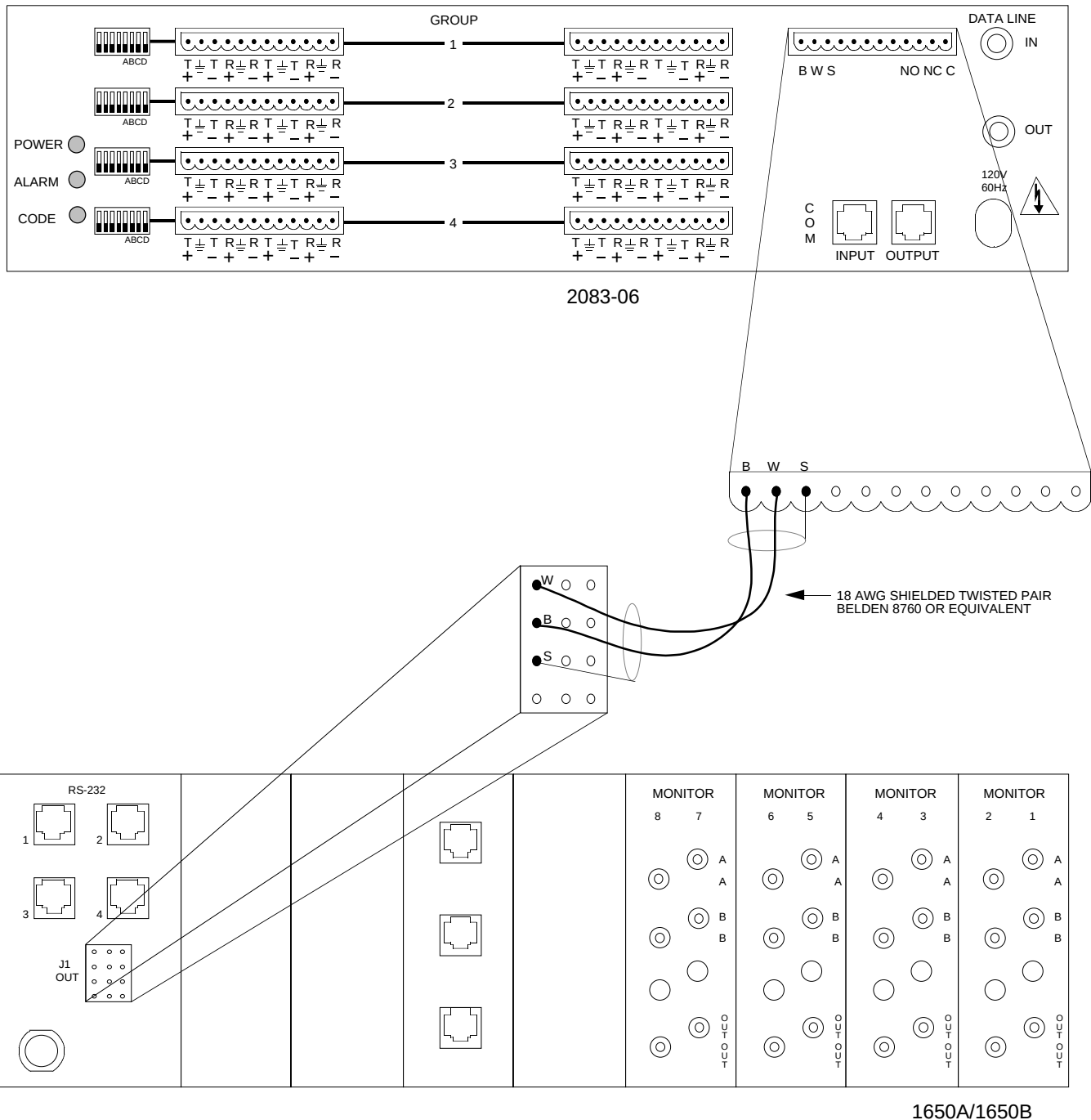
TYPICAL SYSTEM CONNECTIONS

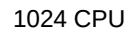
1995 TO 2083-06



TYPICAL SYSTEM CONNECTIONS

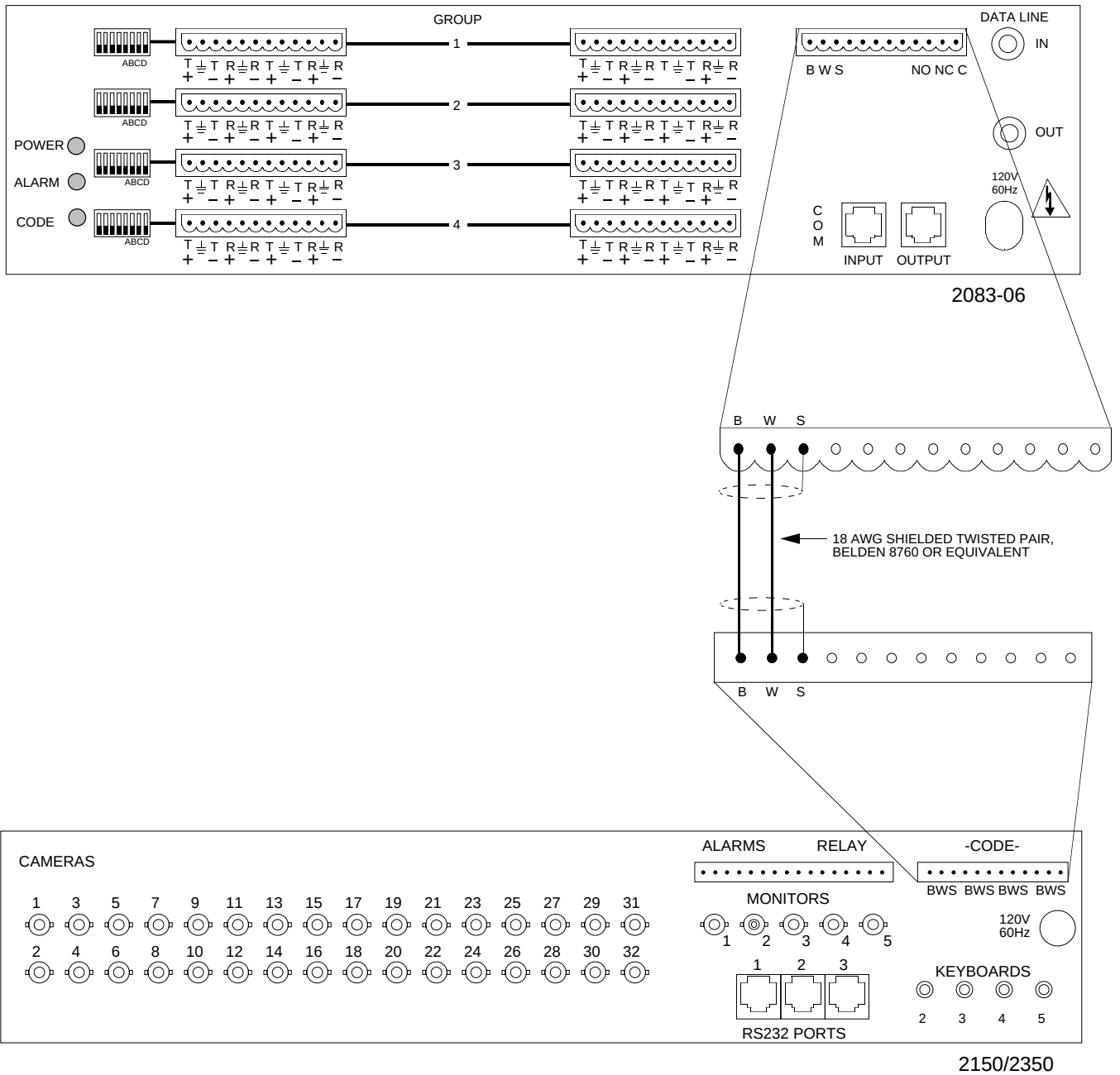
1650 TO 2083-06



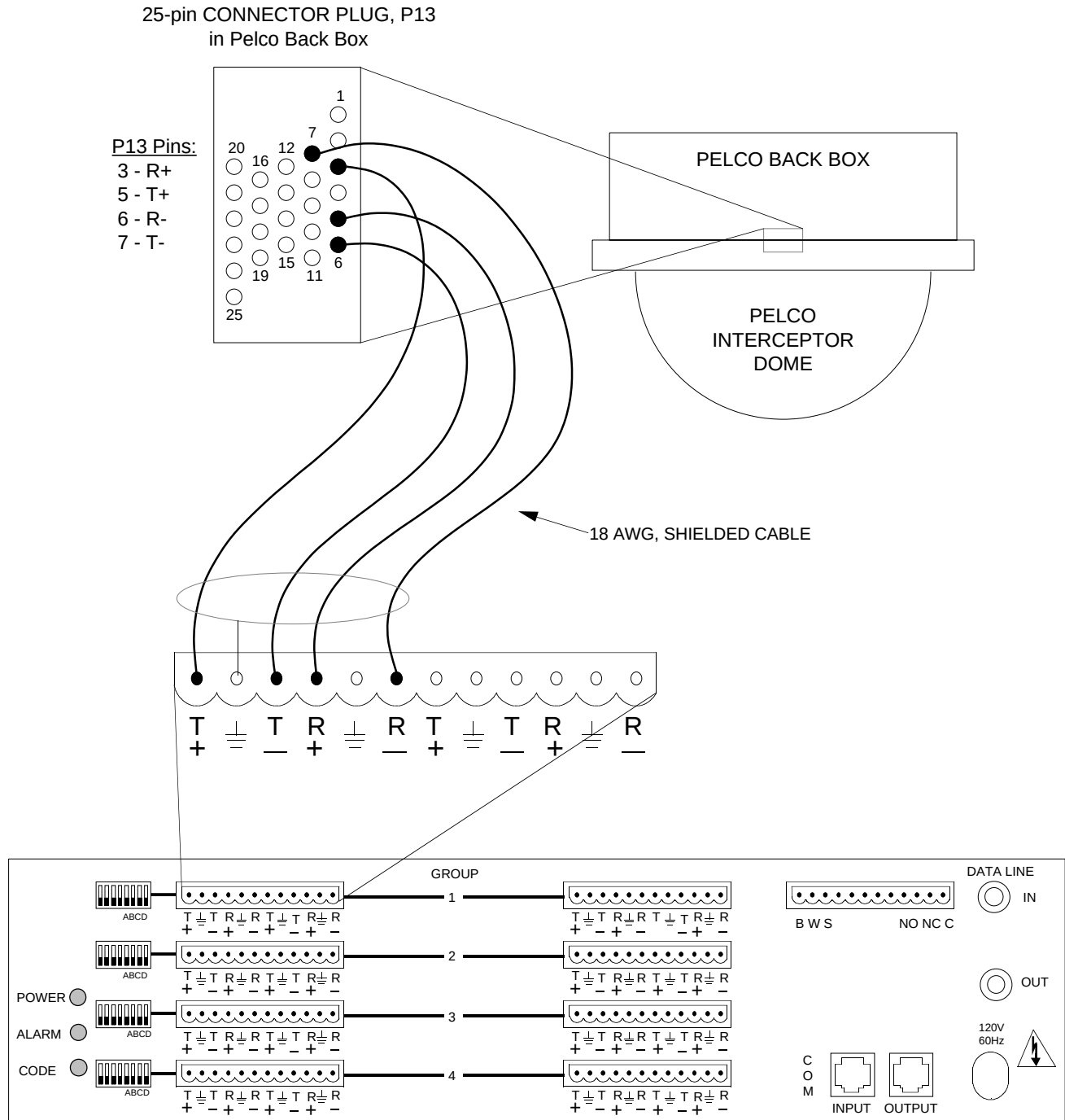


TYPICAL SYSTEM CONNECTIONS

2150 TO 2083-06



TYPICAL SYSTEM CONNECTIONS 2083-06 to Pelco Interceptor Dome



2083-06

Declaration of Conformity

Manufacturer:

Sensormatic Video Systems Division

Manufacturer's Address:

Sensormatic Video Systems Division
1 Blue Hill Plaza
Pearl River, New York, 10965 USA

Sensormatic Electronics Corporation
State Rd. 110 Km 5.8
Poblado San Antonio
Aguadilla P.R. 00690

Declares, that the product(s) listed below:

Name/Type:	Code Translator
Model Number:	ADS2083-06X

complies with the EMC Standards EN55022 (Class B), EN50082-1, and also complies with the following safety standard: EN60950.

Additional information:

These products herein, comply with the requirements of the EMC Directive 89/336/EEC, and with the Low Voltage Directive (LVD) 73/23/EEC. The equipment was tested in a typical configuration.

Pearl River, NY, USA 10 June, 2000



Harold D. Johnson, Ph.D.
Senior Engineering Manager

European Contact: Sensormatic GmbH
Am Schimmersfeld 7,
40880 Ratingen, Germany

SPECIFICATIONS

Electrical Ratings: AD2083-06: 120 VAC, 50/60 Hz, 8 W
 ADS2083-06X 230 VAC, 50/60 Hz, 100 mA

Mounting: Desktop or rack-mount

Weight: 7 lbs. (3.2 Kg)

Dimensions: 3.5" H x 17" W x 7.75" D (89 x 432 x 197 mm)

An **American Dynamics** Product
Designed and built by
Sensormatic Video Systems Division
One Blue Hill Plaza
Pearl River, New York, 10965
Business: (914) 624-7600
Technical Support Center: 1-800-442-2225
FAX: (914) 624-7685